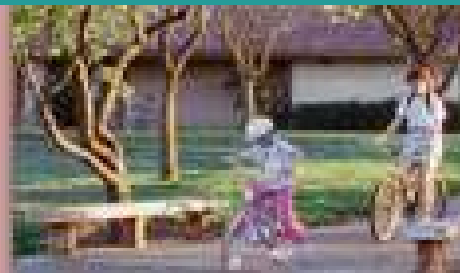# Creating Livable Communities
By Integrating Zoning and Transportation Improvements

Christopher V. Forinash
US EPA

Virginia Transportation Conference
Roanoke – October 18, 2004

Topics to be Addressed

- What makes a community livable?

- What does EPA do?

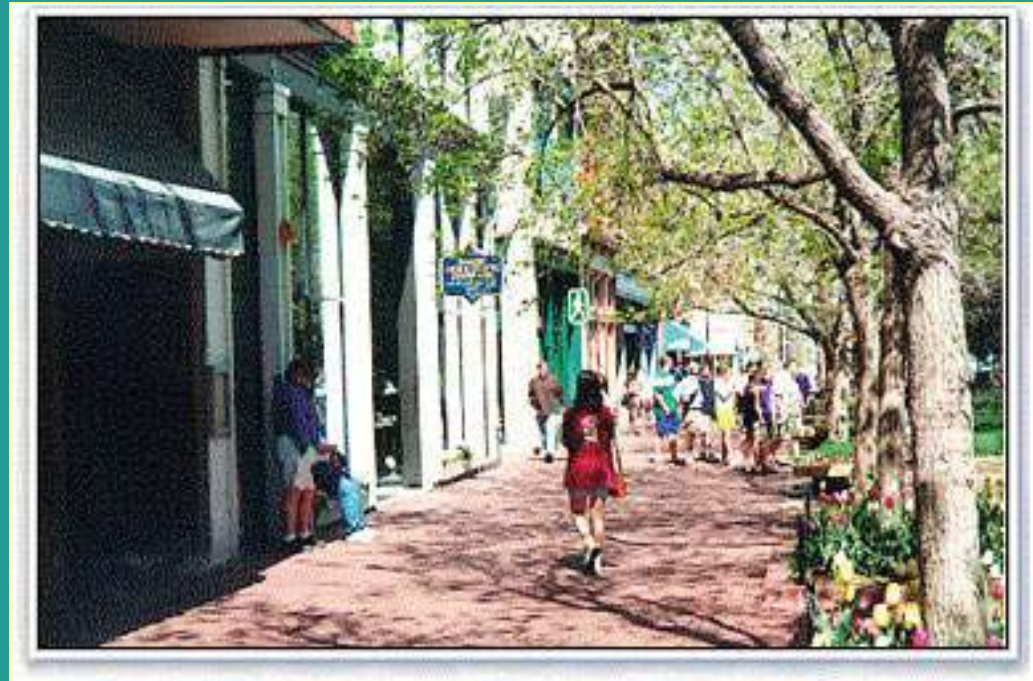- How can landuse and transportation work together?

EPA United States
Environmental Protection Agency

"...to protect human health and to safeguard the natural environment..."

What Is smart growth?

Smart Growth is growth that serves communities, the economy, public health, AND the environment.

- Economic development and jobs

- Strong neighborhoods

- Healthy communities

What is smart growth?

TEN PRINCIPLES:

1 Mix land uses
2 Take advantage of compact building design
3 Create a range of housing opportunities and choices
4 Create walkable neighborhoods
5 Foster distinctive, attractive communities with a strong sense of place
6 Preserve open space, farmland, natural beauty, and critical environmental areas
7 Strengthen and direct development towards existing communities
8 Provide a variety of transportation choices
9 Make development decisions predictable, fair, and cost effective
10 Encourage community and stakeholder collaboration in development decisions

Smart Growth Network

A loose affiliation of individuals and organizations that share information and ideas about smart growth.

Founded in 1996, expanded in 2001 & 2003.

National Association of Counties
Urban Land Institute
Natural Resources Defense Council
National Trust for Historic Preservation
National Association of Realtors
Trust for Public Land
Center for Neighborhod Technology

State of Maryland
Trust for Public Land
Institute for Transportation Engineers
National Oceanic and Atmospheric Administration
Sustainable Communities Network
National Multi-Family Housing Council
American Famland Trust

- American Planning Association
- Congress for the New Urbanism
- Urban Land Institute
- National Association of Realtors
- National Multi-Family Housing Assn.
- NOAA
- International City/County Management Association
- Local Government Commission
- State of Maryland
- NACo/USCM Joint Center for Sustainable Communities
- National Association of Counties
- National Association of Local Government Environmental Professionals
- The Northeast-Midwest Institute
- American Farmland Trust
- George Washington University's Center for Sustainability and Regional Growth
- Center for Neighborhood Technology
- Conservation Fund
- National Growth Management Leadership Project
- National Neighborhood Coalition
- National Trust for Historic Preservation
- Natural Resources Defense Council
- Scenic America
- Surface Transportation Policy Project
- Sustainable Communities Network
- Trust for Public Land
- Fannie Mae
- Smart Growth America
- Local Initiatives Support Coalition (LISC)
- Institute for Transportation Engineers
- Rails to Trails Conservancy
- Smart Growth America

Smart Growth Works

Smart Growth Strategy Regional Livability Footprint Project: Association of Bay Area Governments

- With current trends
  - 130 mi^2 of greenfields developed = twice area of San Francisco
  - +9% affordable housing
  - no increase in transit

- In a smart growth future
  - 25 mi^2 less greenfields developed
  - 62% of new housing affordable
  - +33% transit ridership

The Crossings, Mountain View, CA.
Photo courtesy of Calthorpe Associates

Smart Growth Works

- *The Costs and Benefits of Alternative Growth Patterns (NJ) 2000*
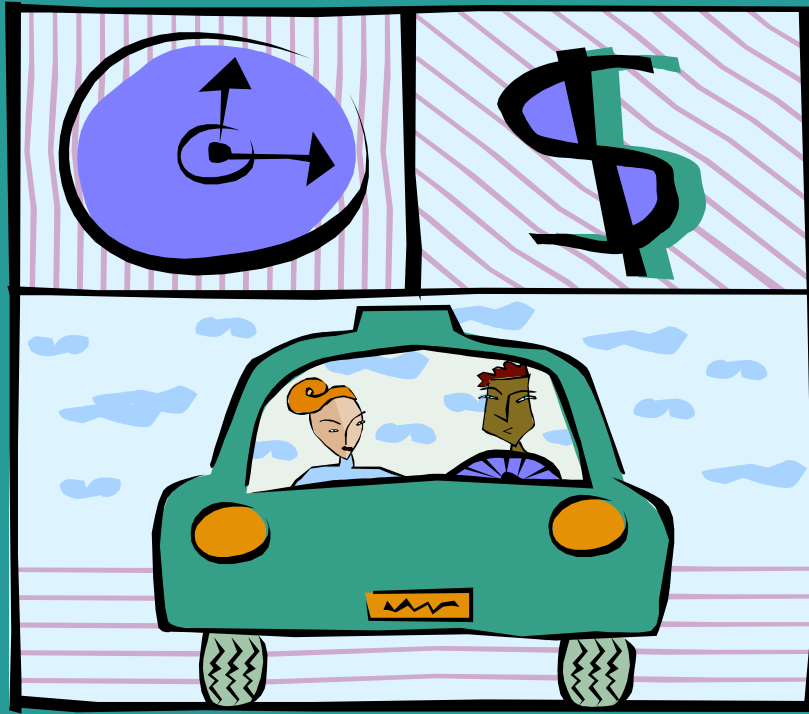
By 2020, Smart Growth Plan produces savings over Trend

– Local governments cut annual fiscal deficit to **$257 million** from **$418m**

– **$870m** less in local road infrastructure costs

– **$1.45 BILLION** less statewide in sewer and other infrastructure

Smart Growth Works

- Federal Reserve governors – smart growth strategies could yield $250 BILLION in savings over 25 years

- Real Estate Research Corp. – smart growth can save up to 70% of local per-capita infrastructure costs

What is EPA's Role?

EPA works to help the development industry, states, cities and towns create healthy, sustainable communities.

What is EPA's Role?

- EPA helps communities by:
  - providing information of model programs and resources
  - removing federal barriers and supporting innovation
  - developing analytical tools and providing technical assistance

Strategies that work: Recognizing effective policies

- Best-practices competition, sponsored by AASHTO & FHWA & EPA

- Successful alternatives to minimum parking requirements

- Street design standards to support smart growth, with FHWA & ITE & CNU

- Access management and corridor capacity preservation programs

Context-sensitive design
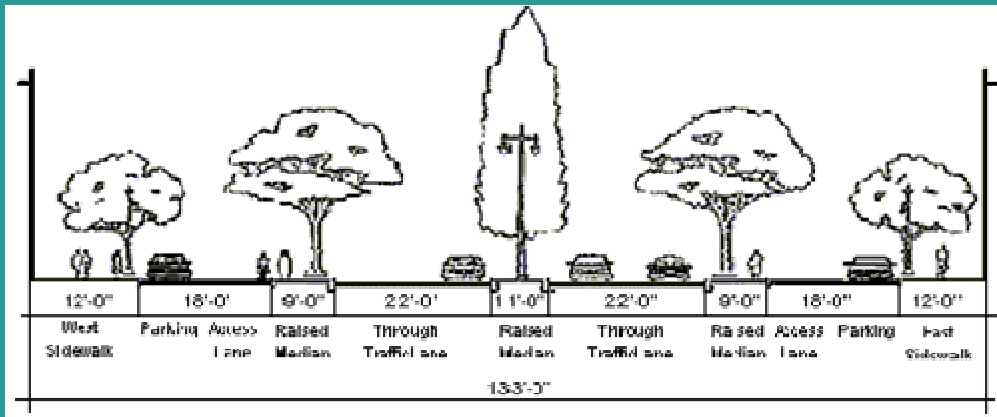
- Partnership with CNU, ITE, and FHWA

- Building on innovative practice in many places

- Fills gap in professional resources

- Addresses critical barrier to smart growth

# Access management can support better development patterns

- Delaware and other DOTs
  - MAINTAIN a road's ability to handle traffic safely and efficiently
  - MINIMIZE the impacts of increased economic growth
  - PRESERVE the ability to make future improvements
  - PREVENT the need to build an entirely new road
  - SORT local and through traffic

- Counterintuitive? Applied in context these principles make streets work better for all users

Strategies that work:
Tools & technical assistance

- Smart Growth INDEX & SG-WATER

- Visualization techniques

- Assistance for code audits & reform

- Analysis of development and redevelopment proposals

Smart Growth INDEX
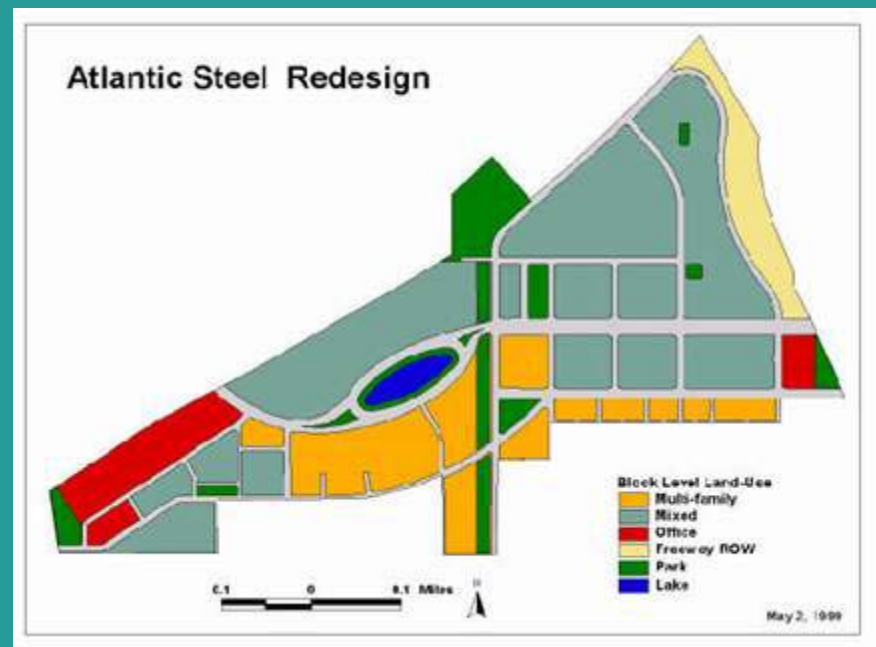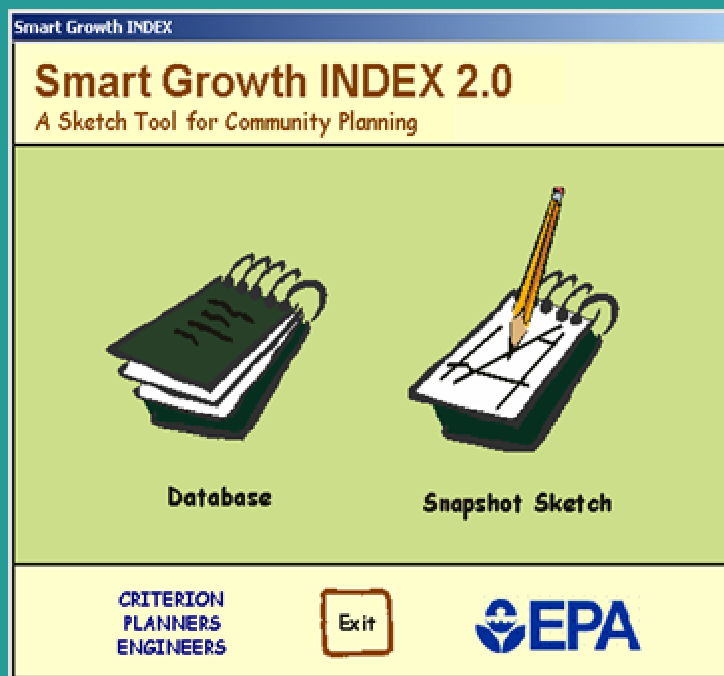
Visualization techniques

Existing conditions at San Pablo Avenue, El Cerrito, California

Visualization techniques

Trees added

Visualization techniques

Buildings brought closer to street
Parking lot moved to rear
On-street parking added

Visualization techniques

Light rail added

Code Audits & Reform

- Smart Growth Leadership Institute provides assistance to communities ready to change

- Professional assistance teams to update landuse & transportation codes

- Analysis of development and redevelopment proposals

Strategies that work: Form-based Codes

Columbia Pike Form Based Code
Arlington, Virginia

- Form based code is by-right overlay
- Encourages mix of uses and travel options
- Results in investment and redevelopment

Strategies that work: Researching what works

- Connectivity studies
  - APA report "Planning for Street Connectivity"
  - Can improve accessibility and mobility
- School siting and travel
- Neighborhood transportation performance
- Regional modeling

School Siting and Travel

- School location and the built environment DO affect the environment, but need more info

- Schools built close to students, in walkable neighborhoods
  - Can reduce traffic
  - Yield 13% increase in walking and biking
  - Reduce emissions 15%

Travel and Environmental Implications of School Siting
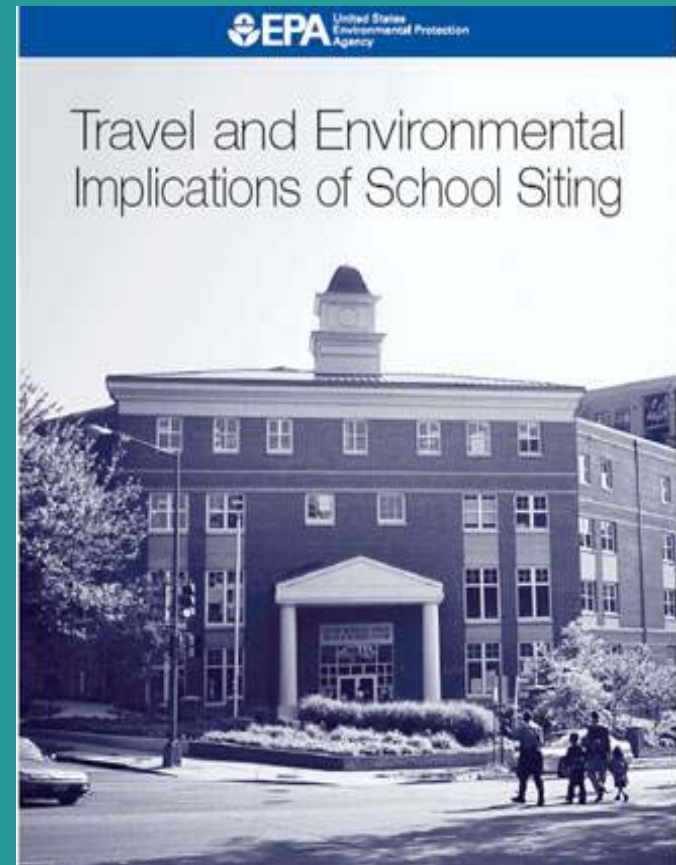
Neighborhood Characteristics

- **Sacramento:** Smart growth neighborhood consumes 1/4 - 1/3 as much land per capita as North Natomas & Antelope; no loss of agricultural land and no new infrastructure; produces less runoff per capita

- **Nashville:** Study neighborhoods are automobile-dependent, with no significant transit or walking; but <u>density and location matter</u>: the more sprawling Antioch produces approximately twice the runoff and 30% more VMT per capita than closer-in Hillsboro

Regional Modeling

- Boston, Charlotte, Denver modeled smart growth scenarios

- Vehicle travel (and congestion and emissions) per capita …
  - can be reduced through compact, mixed-use development
  - can be decreased further by coordinating land use concentration with good transit service

- In concentrated growth areas …
  - Local vehicle travel increases, though at lower per-capita rates
  - Selected street network improvements can mitigate local effects.

Summary

- Transportation and land development can work together to meet multiple goals

- Local communities at the forefront

- DOTs can adopt policies that help create successful communities

For More Information...

- Contact us
  - forinash.christopher@epa.gov
  - 202-566-2842

- Visit these smart web sites
  - www.epa.gov/smartgrowth
  - www.smartgrowth.org